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Form PTO-1449 U.S. DEPARTMENT OF COMMERCE ATTY. DOCKET NO. SERIAL NO. PATENT AND TRADEMARK OFFICE M122-2500 Filed Herewith LIST OF ART CITED BY APPLICANT APPLICANT David L. Dickerson et al. (Use several sheets if necessary) FILING DATE GROUP Filed Herewith Unknown U.S. PATENT DOCUMENTS Document Date Name Subclass Filing Date Number laitiel If Appropriate 5,674,775 10/7/97 Ho et al. AA AB 6,040,232 3/21/00 Gao 6.074.932 6/13/00 Wu AC 6,090,684 7/18/00 lshitsuka et al. AD AE 6,093,621 7/25/00 Tseng AF 6,103,635 8/15/00 Chau et al. ΑG 6,153,480 11/28/00 Arghavani et al. ΑH 5.981.356 11/99 Hsuch et al. 5,989,975 11/99 Αl Kuo A) 6,153,478 11/00 Lin et al. ΑK 6,232,203 B1 05/01 Huane 6,249,035 B1 06/01 Peidous et al. FOREIGN PATENT DOCUMENTS Document Date Translation Country Number Yes No 02.07.97 AM EP 0 782 185 A2 Europe (NEC Corporation) JP 11-67890 Japan ΑO JP 2000-269318 9/29/00 Japan х AP OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)Q IBM Corp., Optimized Shallow Trench Isolation Structure and Its Process for Eliminating Shallow Trench Isolation-Induced Parasitic Effects. AR A.M 34 IBM Technical Disclosure Bulletin, No. 11, pp. 276-277 (April 1992). AR Texas Instruments SPIE, Vol. 2875, A Study of Integration Issues in Shallow Trench Inclution for Deep Submicron CMOS Technologies, pgs. 39-43 Chatterje, Mason, Joynes, Rogers, Mercer, Kuchne, Esquivel, Mei, Murtaza, Taylor, Ali, Nag, O'Brien, Ashburn and Chen AS S. Wolf et al, Silicon Processing for the VLSI Era, Vol. 1, page 366; 1986. 2/08/2005 **EXAMINER** MAi DATE CONSIDERED ANH *EXAMINER: Initial if reference considered, whether or not cristion is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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		AB	5,67	7,233	10/14/97	Abiko							
		AC	5,71	2,185	01/27/98	Tstri et al.							
		AD	5,78	0,346	07/14/98	Arghavani et ol.							
		AE	5,80	1.083	09/01/98	Yu ca al.							
		AF	5,89	5,254	04/20/99	Huang et al.							
		AG	5,39	1,733	J/14/95	Jang							
		AH	5,721	i,620	3/17/98	Park							
		Al	5,90	862,1	05/18/99	Son et al.							
		N	5,964	5,614	10/12/99	Park et sl.							
		AK	6,08	3,808	7/4/00	Shin et at.							
		AL	5,86	3,827	01/26/99	Joyner							
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A		AR		S. Wolf et al., Silicon	Processing for the	Processing for the VLSI Era, Vol. 1, pages 522, 534, and 541; 1986.							
A.	M												
	AS K. Ishimaru et al., Trench Isolation Technology with 1 Micron Depth n-and p-Wells for a Full CMOS SRAM Cell with a 0.4 Micron IEEE 1994 pps. 97-98												
		ΛT		Fazan & Mathews, "A	. Highly Manufacti	urable Trench Isolation Process for D	eep Submicron DRAMs.	" IEEE 1993,	4 pages.				
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A. M	M	5,933,749	08/03/99	Lec							
	AB	5,937,308	08/10/99	Gardner et al.	_						
	AC	5,960,297	09/28/99	Saki							
	AD	5,356,828	10/18/94	Swan et al.							
	AE	5,976,948	11/02/99	Werner et al.							
	AF	5,962,342	10/05/99	Chuang et al.							
	AG	6,177,331 BI	01/23/01	Koga							
	НА	4,533,430	08/06/85	Bower							
	AI	4,882,291	11/21/89	Jeuch							
	AJ	5,258,332	11/02/93	Horioka et al.							
	AK	5,925,575	07/1999	Tao et al.							
	AL	5,904,523	05/1999	Feldman et al.							
	АМ	5,374,585	12/1994	Smith et al.							
\prod_{-}	AN	5,506,168	04/09/96	Morita et al.							
1	AO	5,554,256	Pruijmboom et al.								
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